What is claimed is:

1.   A panel driving method for driving pixels of a panel, wherein the pixels are classified into a plurality of groups and the pixels of one of the plurality of groups are addressed and sustain-discharged before the pixels of another one of the plurality of groups are addressed and sustain-discharged, a frame period for displaying a single image is divided into a plurality of sub-fields to each of which a predetermined gradation weight is allocated, the sub-fields are selectively operated to determine a gradation of visual brightness for each cell, and for at least one of the sub-fields, the method comprising:

during a write/sustain mixed period, sequentially applying, address signals, during an address period, and sustain signals, during a sustain period, to the pixels of one of the plurality of groups before applying address signals and sustain signals to the pixels of another of the plurality of groups, wherein the step of applying address signals and sustain signals is repeated for each of the plurality of groups and while a sustain period is being performed on the pixels of one of the plurality of groups, the pixels of others of the plurality of groups to which address signals and sustain signals have already been applied being are selectively subjected to sustain periods;

during a concurrent sustain period, performing a predetermined length of sustain period concurrently on the pixels of all of the plurality of groups; and

during a brightness compensation period, selectively performing an additional sustain period on the pixels of each of the plurality of groups so that the pixels of each of the plurality of groups satisfy a predetermined gradation allocated to the sub-field.

2. The panel driving method of claim 1, wherein the write/sustain mixed period is first followed by the concurrent sustain period, and then followed by the brightness compensation period.

3. The panel driving method of claim 1, wherein the write/sustain mixed period is first followed by the brightness compensation period in order to equalize degradations differentiated for the each of the plurality of groups due to sustain periods performed on the each of the plurality of groups during the write/sustain mixed period, and then followed by the concurrent sustain period in order to obtain the predetermined gradation allocated to the sub-field.

4. The panel driving method of claim 1, wherein sustain pulses applied during a sustain period of the write/sustain mixed period are wider than and/or have a higher voltage than sustain pulses applied during sustain periods which do not occur during the write/sustain mixed period.

5. The panel driving method of claim 1, wherein during the write/sustain mixed period, a length of a sustain period occurring subsequent to an address period performed on one of the plurality of groups is different from a length of a sustain period subsequent to an address period performed on another of the plurality of groups.

6. The panel driving method of claim 1, further comprising concurrently applying reset signals to all of the plurality of groups before an address period is performed on one of the plurality of groups.

5   7. The panel driving method of claim 1, further comprising concurrently applying reset signals to all the pixels of one of the plurality of groups before applying address signals to the pixels of the group.

8. A panel driving method for driving pixels of a panel, wherein the pixels are

10 classified into a plurality of groups and the pixels of one of the plurality of groups are addressed and sustain-discharged before the pixels of another one of the plurality of groups are addressed and sustain-discharged, a frame period for displaying a single image is divided into a plurality of sub-fields to each of which a predetermined gradation weight is allocated, and the sub-fields are selectively operated to determine a gradation of visual brightness for each cell, the method

15 comprising driving at least one of the sub-fields by:

performing a sequence of an address period and a sustain period on the pixels of one of the plurality of groups before performing an address period on the pixels of another one of the plurality of groups, wherein:

the step of performing a sequence of an address period and a sustain period on the

20 pixels of one of the plurality of groups is repeated until all of the plurality of groups have undergone the sequence of an address period and a sustain period,

while performing the sustain period on the pixels of the group which was most recently addressed, a sustain period is selectively performed on the pixels of at least one other

31

group that has already undergone an address period and has not yet obtained the predetermined gradation by the already performed sustain periods, and while the pixels of all the other groups of the plurality of groups that have already undergone an address period and have already obtained the predetermined gradation by the already performed sustain periods are maintained in an idle state; and

after the pixels of all of the plurality of groups have undergone an address period and a sustain period, selectively performing an additional sustain period on the pixels of each of the plurality of groups that do not satisfy the predetermined gradation.

9. The panel driving method of claim 8, further comprising concurrently performing a reset period on all of the plurality of groups before an address period is performed on any of the plurality of groups.

10. The panel driving method of claim 8, further comprising performing a reset period on one of the plurality of groups before an address period is performed on the one of the plurality of groups.

11. A panel driving method for driving pixels of a panel, wherein the pixels are classified into a plurality of groups and the pixels of one of the plurality of groups are addressed and sustain-discharged before the pixels of another one of the plurality of groups are addressed and sustain-discharged, a frame period for displaying a single image is divided into a plurality of sub-fields to each of which a predetermined gradation weight is allocated, and the sub-fields are

selectively operated to determine a gradation of visual brightness for each cell, and the method comprising driving at least one of the sub-fields by:

performing an address period on the pixels of one of the plurality of groups while the pixels of others of the plurality of groups are kept idle; and

while performing the sustain period on the pixels of the group which was most recently addressed, performing a sustain period on the pixels of each of other groups that have already undergone an address period.

12. The panel driving method of any of claim 11, further comprising concurrently performing a reset period on all of the plurality of groups before an address period is performed on any of the plurality of groups.

13. The panel of claim 11, further comprising performing a reset period on one of the plurality of groups before an address period is performed on the one of the plurality of groups.

14. A panel driving apparatus comprising:

a sub-field processor dividing a frame period, during which a picture is displayed, into a plurality of sub-fields;

a signal synthesis unit which generates an address signal for addressing pixels to be lit and a sustain signal for sustain-discharging addressed pixels; and

a pixel driving unit which selectively operates the sub-fields and drives the pixels of the individual groups in response to the address signals and the sustain signals that are output from the signal synthesis unit, to determine a gradation of visual brightness for each pixel,

wherein the signal synthesis unit generates the address signals and the sustain signals so that at least one of the sub-fields is driven by sequentially performing an address period and a sustain period on the pixels of one of the plurality of groups in such a way that while an address period is being performed on the pixels of one of the plurality of groups, the pixels of other

5   groups are idle, and while a sustain period on the pixels of the group which was most recently addressed is being performed, a sustain period is selectively performed on the pixels of the other of the plurality of groups that have already undergone an address period.

15.   The panel driving apparatus of claim 14, wherein the signal synthesis unit further

10   generates a sustain signal for performing a sustain period of a certain length concurrently on the pixels of all of the groups after the pixels of all of the groups have undergone address periods.

16.   The panel driving apparatus of claim 14, wherein the signal synthesis unit further generates a sustain signal for performing an additional sustain period on the pixels of each of the

15   groups so that the pixels of each of the groups satisfy the predetermined gradation.

17.   The panel driving apparatus of claim 14, wherein the signal synthesis unit is operated so that, while an address period and a sustain period are sequentially being performed on the pixels of one of the plurality of groups, if a predetermined gradation is obtained for any of

20   the other of plurality of groups, the pixels of the group which has obtained the predetermined gradation are idle even though others of the plurality of groups undergo sustain periods.

34

18.   The panel driving apparatus of claim 14, wherein the signal synthesis unit is operated so that a reset period is concurrently performed on all of the groups before an address period is performed on one of the plurality of groups.

19.   The panel driving apparatus of claim 14, wherein the signal synthesis unit is operated so that a reset period is performed on one of the plurality of groups before an address period is performed on the one of the plurality of groups.